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consultants

SPECIFICATION COVER SHEET

Client: Gowanus Canal Remedial
Design Group

Project: Gowanus Canal – 4th St
Turning Basing Pilot Study –
Dredging and Capping

Project #: HPH106A

SPECIFICATION SECTION: 01 32 00 **TITLE:** CONSTRUCTION PROGRESS
DOCUMENTATION

SPECIFICATION PREPARED BY:
(Specification Preparer, SP)

Signature



Name

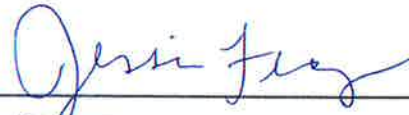
Lauren Wellborn

Date

5/19/2017

**SCOPE AND FORMAT CHECKED
BY:**
(Scope and Format Checker, SFC)

Signature



Name

Jessica Fears

Date

5/19/17

**DETAILED REQUIREMENTS
CHECKED BY:**
(Detailed Requirements Checker, DRC)

Signature



Name

Darrell Nicholas

Date

5/19/17

APPROVED BY:
(Specification Approver, SA)

Signature



Name

J.F. Beech

Date

19 May 2017

Record of Revision (Number and initial all revisions)

Rev. No.	Reason	Date	By	Checked	Approval
0	TB4 Pilot Study Design – Issued for Bid	05/19/17	LSW	JMF	JFB

SECTION 01 32 00

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SECTION 01 32 00

CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 GENERAL

1.01 SUMMARY

- A. This Section summarizes reporting requirements to document construction progress, including schedules and daily/weekly progress reports.

1.02 RELATED SECTIONS

- A. Section 01 33 00 Submittals
- B. Section 02 51 19 Dredged Sediment and Waste Management
- C. Section 35 20 23.13 Dredging and Dewatering
- D. Section 35 43 00 Cap Construction
- E. Contract Documents

1.03 REFERENCES

- A. EPA, August 2016. US EPA Region 2 Clean and Green Policy: Touchstone Practices and Metrics. https://www.epa.gov/sites/production/files/2016-01/documents/r2_clean_and_green_update.pdf

1.04 SUBMITTALS

- A. The Contractor shall submit the following to the Owner's Representative in accordance with Section 01 33 00:
 - 1. Construction Schedules. The Contractor shall not start activities at the Site until the Revised Final/Baseline Schedule has been reviewed and approved by the Owner's Representative unless the Contractor has received explicit approval to start activities from the Owner's Representative in writing. The Contractor shall submit the following construction schedules in accordance with the requirements listed in this Section:
 - a. Preliminary Construction Schedule;
 - b. Draft Final/Baseline Schedule; and
 - c. Revised Final/Baseline Schedule.

2. Daily Progress Reports. The Contractor shall submit daily progress reports including, but not limited to, the following information as it applies to that day's work:
 - a. General Information:
 - i. Date and report number;
 - ii. Weather Conditions;
 - iii. Contractor and Subcontractors (if applicable) onsite and area of work completed;
 - iv. Hours of Work, including downtime and delays;
 - v. Brief description of the work performed, including backfill-related progress, cap-related progress, treatment-related progress, end placement-related progress;
 - vi. Health and safety update, including the documentation of any near misses or incidents;
 - vii. Photographs that are representative of the day's work activities;
 - viii. Barge logs, truck logs, weight tickets, and bills of lading/manifests;
 - ix. A record of coordination activities related to bridge operations;
 - x. An inventory of materials brought onsite;
 - xi. Quality Assurance/Quality Control inspection testing and results;
 - xii. Brief description of products or materials inspected;
 - xiii. Notes regarding any construction discrepancies, field alterations, deficiencies, and any proposed remedial action; and
 - xiv. Reference and description of any circumstances that may lead to a contractual issue or question (i.e. differing site condition, etc).
 - b. Progress documentation of bulkhead support construction activities in accordance with section 31 41 16 and section 31 51 13, including the following information:
 - i. Quantities of any materials delivered relative to the bulkhead support;
 - ii. Locations of bulkheads where work is being performed;

- iii. Daily vibration monitoring reports during sheet pile driving;
 - iv. Daily incremental and cumulative optical survey results of the existing bulkhead;
 - v. Daily incremental and cumulative optical survey results of the bulkhead support survey results;
 - vi. Quantities and identifications of sheet piling installed and as-built locations, lengths and orientations provided as simple sketches and descriptions;
 - vii. Progress of tieback drilling, installation, and testing; and
 - viii. Tieback test records and lock-off loading for each tieback installed.
- c. Progress documentation of dredging activities in accordance with section 35 20 23.13, including the following information:
- i. Location of dredging;
 - ii. Estimated daily dredge volume;
 - iii. Estimated volume dredged to date;
 - iv. Variance from projected total volume at time of reporting;
 - v. Any inspections or QC activities of the work and results of those inspections/activities;
 - vi. Any surveys performed;
 - vii. Any communications received by the Owner's Representative;
 - viii. Job safety (including deficiencies and corrective actions);
 - ix. Equipment onsite, equipment performance, maintenance, hours of downtime due to equipment malfunction; and
 - x. Any other comments.
- d. Progress documentation of in-barge solidification/stabilization (S/S) mixing containing, at a minimum, the information below in accordance with Section 02 51 19:
- i. Records of effectiveness and efficiencies of mixing including, but not limited to, mixing times needed to achieve homogeneity of the material,

equipment used for mixing, and any difficulties in using mixing equipment that may be improved.

- ii. Daily weights prior to reagent addition of dredged sediment within each barge that has undergone S/S treatment using ullage tables.
 - iii. Daily weights of reagent added to each barge load. The Contractor shall identify and quantify any variance from estimated reagent dosages and track overall overrun/underrun.
 - iv. Daily weights of processed dredged material (PDM) temporarily stockpiled on the asphalt pad prior to load out using ullage tables.
 - v. Daily weights of PDM in barges awaiting off-site transport using ullage tables.
 - vi. Daily weights of PDM transported off-site using ullage tables and associated manifests.
- e. Progress documentation of off-site S/S treatment containing, at a minimum, the information below in accordance with Section 02 51 19:
- i. Daily weights based on ullage tables prior to addition of reagent of Dredged Sediment that has undergone S/S treatment at the Staging Site to meet transportation requirements if load out by truck for transport to the off-site S/S facility is selected by the Contractor.
 - ii. Daily weight of reagent added at the Staging Site to meet Paint Filter Testing requirements if load out by truck for transport to the off-site S/S facility is selected by the Contractor.
 - iii. Tracking of quantities of PDM temporarily stockpiled on the asphalt pad prior to transport via truck for off-site S/S if the Contractor selects load out by truck for transport to the off-site S/S facility.
 - iv. Daily weights of dredged sediment in barges awaiting off-site transport.
 - v. Daily weights of dredged sediment transported off-site via barge or truck.
 - vi. Daily weights of Dredged Sediment that has undergone S/S treatment at the Subcontractor's sediment processing facility.
 - vii. Quantities of S/S reagent added to Dredged Sediment at the Subcontractor's sediment processing facility. The Contractor shall

identify and quantify any variance from estimated reagent dosages and track overall overrun/underrun.

- viii. Tracking of quantities of PDM placed into specific stockpile locations at the Subcontractor's sediment processing facility.
- ix. Daily quantities of PDM transported from the Subcontractor's sediment processing facility.
- f. Progress documentation of off-site thermal treatment containing, at a minimum, the information below in accordance with Section 02 51 19:
 - i. Daily weight of S/S treated dredged sediment received at the thermal treatment facility.
 - ii. Daily weight of PDM that has undergone thermal treatment.
- g. Progress documentation of capping containing, at a minimum, the information below in accordance with Section 35 43 00:
 - i. Estimated area capped that day; and
 - ii. Estimated volume placed and comparison to estimate.
- 4. Draft Weekly Progress Reports. The Contractor shall submit weekly progress reports marked as "DRAFT" including, but not limited to, the following information as it applies to that week's work:
 - a. General Information:
 - i. Date and report number;
 - ii. Contractor and Subcontractors (if applicable), including a list of equipment and crewmembers onsite, and area of Work completed;
 - iii. Hours of Work, including downtime and delays;
 - iv. Description of Work performed, including backfill-related progress, cap-related progress, treatment-related progress, end placement-related progress, with accompanying photographs;
 - v. Summaries of surveys performed, barge activities, and truck activities;
 - vi. Health and safety update, including the documentation of any near misses or incidents;

- vii. A list of access agreements obtained that week, including the property address, property owner, property owner contact information, and status of access agreement;
 - viii. A list of deviations from the drawings or specifications;
 - ix. A list of deviations from the estimate and potential implications for completing the balance of the work;
 - x. Details of any delays that may impact the project schedule and areas that need improvement;
 - xi. A list of problem areas (i.e., areas that the Contractor is having difficulties completing, delays encountered, or Work that has been completed and is deficient) and solutions;
 - xii. Narrative status of planned activities compared with the planned and updated project schedule;
 - xiii. Actions taken to address any design or construction issues;
 - xiv. Two week “look ahead” plan listing activities to be completed in the coming two weeks; and
 - xv. Updated project schedule, either in bar chart or table format.
- b. Progress documentation of dredging activities in accordance with Section 35 20 23.13, including the following information:
- i. Estimated volume removed during the week;
 - ii. Weekly production rate and comparison to estimate;
 - iii. Updated scow logs including number of scows loaded, loaded drafts, and estimated volume;
 - iv. Chart depicting cumulative volume or weight of material dredged and removed from Site relative to contract volumes; and
 - v. Export of XYZ files and a progress map showing areas dredged with bucket tracks.
- c. Progress documentation of capping activities in accordance with Section 35 43 00, including the following information:
- i. Estimated area capped during the week (square footage) and locations over which capping materials were placed;

- ii. Estimated volume placed and comparison to estimate;
 - iii. Quantities of each capping material received (e.g., sand, oleophilic clay, granular activated carbon, aggregate);
 - iv. Quantities of each capping material transported for mixing or placement;
 - v. Quantities of cap materials mixed and prepared;
 - vi. Quantities of each capping material placed (e.g., sand, oleophilic clay, granular activated carbon, aggregate); and
 - vii. Cap Quality Control measurements.
5. Final Weekly Progress Reports. The Contractor shall submit final weekly progress reports that incorporate any revisions based on Owner's Representatives review of Draft Weekly Reports.
6. Monthly Progress Reports. The Contractor shall submit monthly progress reports including, but not limited to, the following information as it applies to that month's work:
- a. A compiled list of all Property Access Agreements to date, including the property address, property owner, property owner contact information, and status of access agreement;
 - b. Electricity Usage (EPA, 2016):
 - i. Usage in kilowatt-hours;
 - ii. Sources of electricity used on Site; and
 - iii. Contractor will enter data into EPA's Power Profiler¹ and report the results.
 - c. Gowanus Project Fleet information as follows (EPA, 2016):
 - i. Number of vehicles in fleet;
 - ii. Vehicle/equipment type, sector, application, horsepower rating, model year, fuel type and monthly usage;
 - iii. Fleet usage rate (hours/vehicle/month);

¹ https://oaspub.epa.gov/powpro/ept_pack.charts

- iv. Whether any of the vehicles have been retrofitted and with what technology since originally manufactured; and
 - v. Contractor will enter data into EPA’s Diesel Emissions Quantifier² and report the results.
- d. Data regarding material reduction and material reuse/recycling, as follows (EPA, 2016):
- i. Tons and type of materials reduced through purchase of products made from recycled materials;
 - ii. materials used or recycled by tons and type of materials; and
 - iii. Contractor will enter data into EPA’s Waste Reduction Model³ and report the results.

1.05 SCHEDULE FORMAT

- A. Schedules shall be developed for use by the Owner’s Representative in the form of Critical Path Method (“CPM”) charts, using MS Project, Oracle Primavera, or equivalent scheduling software with the characteristics listed below.
- 1. Each major task shall be represented. Significant subtasks (including submittals) shall be broken out from each major work element.
 - 2. The time scale shall indicate the first work day of each week.
 - 3. The diagram shall allow space for notations.
 - 4. The minimum diagram size shall be 11 x 17 inches.
 - 5. Major tasks shall be listed in essentially chronological order, with the activities that are to occur first given at the top of the schedule.
 - 6. The critical path shall be clearly indicated and linked to a final milestone.
 - 7. Schedule float shall be reported for activities listed on the critical path.

1.06 SCHEDULE CONTENT

- A. Each schedule shall indicate:

² <https://www.epa.gov/cleandiesel/diesel-emissions-quantifier-deq>

³ <https://www.epa.gov/warm>

1. The complete sequence of work by activity;
2. The dates for the beginning and completion of each major task and the sequence of significant subtasks;
3. Clearly delineated anticipated delays or decisions outside of the Contractors control;
4. The estimated percent completion for each item, as of the date of the schedule revision; and
5. Interim milestone dates that Contractor requires to track and manage progress.

1.07 PROGRESS REVISIONS

A. Revisions to schedules shall include:

1. The to-date progress of each activity plotted against the approved baseline schedule;
2. Changes occurring since the previous schedule submission including:
 - a. Major changes in scope;
 - b. Activities modified since previous submission;
 - c. Revised projections of progress and completion;
 - d. Number of consumed anticipated delay days;
 - e. Other identifiable changes; and
 - f. Force majeure occurrences.
3. A narrative report as needed to define:
 - a. Problem areas, anticipated delays, and impacts on the schedule;
 - b. Recommended equipment, manpower, or resequencing that will be used to complete the project in the approved timeframe if a critical path or interim milestone is missed; and
 - c. Effect of changes on schedules of other contractors.
4. A recovery schedule if the critical path is affected.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

[END OF SECTION]